Vol.5 No.1 March 2000

# THE NORTHLAND SKY WATCHER

*For National Weather Service weather watchers of northeastern Minnesota and northwestern Wisconsin*

## *Sunbathing in March???*

***Northlanders enjoy May-like temperatures in March***

Weather has been a major topic of conversation this winter for two reasons: it's been unusually warm and dry. With only a handful of snowstorms under our belt and only a few days of bone-chilling, arctic temperatures, it seems like winter never even got started before early spring-like conditions arrived.

***The "Icebox" not quite so cold***

At International Falls, MN, the "Icebox of the Nation", the average winter temperature was almost 8E above normal. During a normal winter International Falls experiences 56 days of sub-zero temperatures. This winter they had only 46 days. Their coldest temperature was -31E on the morning of January 21st. Seven daily record highs were set this winter and four more were set in early March. The warmest February temperature ever recorded occurred on the 22nd, when the mercury soared to 58E

It was not only warm in International Falls this winter, it was also dry. During a normal winter (December through February) they receive 34 inches of snow. This year they only got 19 inches. There was an inch or less of snow on the ground through January 5th. The National Climatic Data Center says the odds of International Falls having a white Christmas is 100%, but those odds were beaten. On Christmas Day, there was only a trace of snow on the ground, and only an inch of snow fell the following day. However, this wasn't enough snow to try out those new sleds, skis, and snowmobiles.

***Tower, MN takes national cold honors***

The coldest temperature achieved this winter nation-wide occurred in our own backyard- Tower, MN- according to the Associated Press. On January 1 the temperatures dipped down to 43 below. Tower was the coldest place in the nation on 22 days, which put them in fifth place. Bodie, CA takes first place with 71 days as the coldest location.

*In this issue*



***Other winter highlights***

Other significant winter weather...or lack of...was quite widespread across northern Minnesota and northern Wisconsin. Duluth recorded it's 5th warmest winter based on airport records. This is also only the 6th winter in the last 100 years that a low temperature of 20 below or colder was not reached at Duluth. Snowfall totals were well below normal across the region. The south shore of Lake

*See "winter", next page*

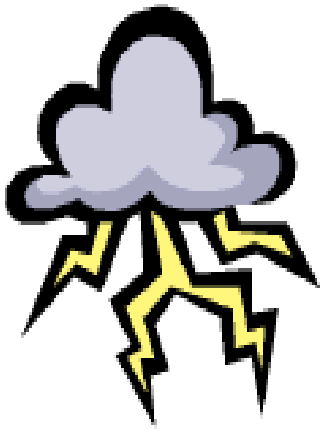
*"Winter", continued from previous page*

Superior was the only area to see appreciable snowfall. Hurley saw the most snow for any month with 41.5 inches recorded during January . A couple of snow storms during February brought snowfall amounts up to near normal, mainly across northwestern Wisconsin, but it was too little too late for winter weather enthusiasts. Temperatures during the winter season for northeastern Minnesota averaged nearly 17 degrees which was 5 to 10 degrees above normal. Precipitation recorded during the winter averaged about an inch to nearly 2 inches, which was 1 to 2 inches below normal. Northern Wisconsin averaged nearly 19 degrees for their winter temperatures, which was 4 to 8 degrees above normal. Precipitation for the winter season averaged 2.5 to 3.5 inches which is 0.5 to 1.5 inches below normal.

Winter ended abruptly as record-setting warmth spread across the region the last week of February and the first week of March. Duluth recorded its earliest 70 degree reading on the 7th of March with a high of 70. The warm temperatures wiped out the meager snow cover, ending any potential for spring snowmelt flooding, but increasing the threat for early grass and brush fires.

The outlook for April calls for above normal temperatures and above normal precipitation. The longer range 90-day outlook for the spring months of April, May, and June call for above normal temperatures and below normal precipitation.

*- Sam Standfield, NWS climate specialist*



A BOLT OF LIGHTNING REACHES A TEMPERATURE APPROACHING 50,000 EF IN A SPLIT SECOND!

THE RAPID HEATING AND COOLING OF AIR NEAR THE

LIGHTNING CAUSES THUNDER.

# Foresters Rely on NWS Forecasts

The NWS in Duluth provides critical forecasts to support the U.S. Forest Service and other fire management agencies in their battles with fires. The intensity and spread of forest and grass fires depend largely on weather conditions.

Twice daily the NWS provides fire specialists forecasts of cloud cover, temperature, humidity, wind direction and speed, and precipitation These numbers are used to predict how severe any fire might become, which, in turn, help them determine how many people and how much equipment may be needed to fight a fire. If the fire threat is high enough, the NWS forecasts may even prompt the agencies to issue burning bans until cooler and more moist weather conditions develop.

*- Craig Sanders, forecaster*

# Another Rousing Success at the Boat Show!

This past February, we hosted our second-ever booth at the Duluth Boat, Sports, and Travel Show. It was a tremendous success, with more than 1300 people visiting our booth during the five-day event. Sure, we took our share of "ribbing", but nearly all the visitors were there to learn more about our products and services. Some of the most popular items at our booth were the NOAA Weather Radios, our website, and of course the tornado videos. This year, we gave away 7 NOAA Weather Radios and 10 rain gauges.The weather radios were donated by The Electric Outlet, the Hermantown Wal-Mart, and the Duluth Target Store. We thank each of those businesses for their generous donations. The best part of having this booth at the boat show is being able to talk with the people who use our products. It is one of the best ways to get feedback on the many varied forecasts and warnings that we issue. We hope to see you next year at our booth!

*-Dean Packingham, forecaster*

Skywarn 2000 is in full swing. We have already conducted six training sessions, but we have many more to do. Here is a list of our remaining Skywarn classes for 2000. We hope you can make it to one.

| | | | |
|---|---|---|---|
| 3/29 | Mason, WI | 7:30 pm | Fire Hall, 24450 Co Rd E |
| 3/30 | Shell Lake, WI | 7:00 pm | Law Enforcement Center |
| 4/5 | Brainerd, MN | 6:30 pm | Courthouse |
| 4/6 | Herbster, WI | 7:00 pm | Clover Town Hall |
| 4/10 | Superior, WI | 7:00 pm | City/County Building |
| 4/11 | Superior, WI | 6:30 pm | WITC |
| 4/19 | Walker, MN | 6:00 pm | Walker School |
| 4/20 | Bigfork, MN | 2:00 pm | Fire Hall |
| 4/20 | Grand Rapids, MN | 6:30 pm | Courthouse |
| 4/25 | International Falls, MN | 6:30 pm | Rainy River Community College |
| 4/27 | Phillips, WI | 2:00 pm | Normal Building |
| 4/27 | Park Falls, WI | 6:30 pm | County Boardroom |
| 5/1 | Duluth, Northstar Township | 7:00 pm | Fire Hall, 7700 Pequaywan Lake Road |

# Skywarn Pioneer Sherman C. Carr Dies

The man credited with being the father of SKYWARN--Sherman Carr, W9NGT, of Hartford, Wisconsin--died March 15. He was 83. Carr was an American Amateur Radio Relay League member for nearly 40 years.

Begun more than 30 years ago, SKYWARN is a cooperative effort through which real-time weather information is relayed via Amateur Radio to NWS offices during severe weather conditions. Carr was Wisconsin Section Emergency Coordinator in the late 1960s when he established the first Amateur Radio weather-spotting network, the Weather Amateur Radio Network--WARN--with assistance from the Milwaukee NWS. Carr's idea worked so well that other states adopted its basic structure, which eventually was implemented as SKYWARN.

Last June, the National Weather Service honored Carr for his role in helping to create the SKYWARN program by presenting him with its Central Region Special Service Award.

# Typical Sequence of Events Leading to Activation of the Skywarn Network

A few months ago we received an e-mail from one of our spotters asking how we use spotter reports. This prompted us to give you a look at our severe weather operations, on a typical severe weather day, from start to finish.

**Early Morning:** Analysis and diagnosis of current and forecast atmospheric conditions.
**9:00 - 9:30 am:** Severe Weather Outlook issued (available on NWS Duluth webpage).
- Includes initial notification of whether or not spotter activation is anticipated.
- Also includes information on the specific threat expected (hail, damaging winds, tornadoes, flooding), and causes of the threat.

**Afternoon/evening:** Once severe weather becomes imminent:
- The NWS activates Skywarn spotter groups and requests a ham report to the NWS office to act as net operator for the Skywarn Network.

# How Spotter Reports Are Used

We receive severe weather information in two ways- via telephone and via the Skywarn radio network. Either way, when a report of severe weather is received, it is passed to the NWS warning coordinator.

**U** If a warning is already in effect for that area, the report is used in a Severe Weather Statement to give more information on the warning. The report is also used in our verification process and compiled into a Local Storm Report which is sent to the media and other subscribers to the weather wire.

**U** If a warning is not already in effect for the area, the warning team considers the report, along with other information such as radar, satellite, and computer model output, and makes a decision to warn or not.

*Forecaster Dean Melde interrogates the July 4th, 1999 storms while Science and Operations Officer Norvan Larson fields a spotter call.*

**U** The warning coordinator keeps the Skywarn net operator informed of the current and projected location of the severe weather, and requests reports from spotters in the path of the storm.

**U** Warnings are disseminated directly to the public via NOAA Weather Radio, to the media via the NOAA weather wire and other news dissemination services, and the affected county sheriff departments via the National Warning System.

**U** When the severe weather episode is over, reports from Skywarn spotters are combined with reports from other sources and published in *Storm Data. Storm Data* is published by the National Climatic Data Center (on the web at *www.ncdc.noaa.gov*) and is used as the single, official source of severe weather reports by weather researchers, insurance companies, court litigants, etc.

*- Ed Flenz, forecaster*

# Co-op Corner

The following were established as official NWS co-op sites in the past year:

**SRLM5-** Split Rock Lighthouse State Park located 5 miles southwest of Beaver Bay, MN on Lake Superior's north shore. At this new site, Harley Hansen supervises the recording of daily maximum and minimum temperatures, as well as precipitation, including daily snowfall and snow depth measurements and weekly snow sampling for water equivalent.

**BRTM5-** Laurentian Learning Center, 2 miles north of Britt, MN off U.S. Hwy 53. At this site, Sue Lanker supervises the recording of daily maximum and minimum temperatures as well as measurements of rain and snow.

**BABM5-** In Babbitt, MN Ryan Scharbarger records and transmits daily temperature, rain, and snowfall from his home.

The following unofficial cooperative observer sites were made part of the weather data collection network during the past year:

**ASKM5-** In Askov, MN maximum and minimum temperatures as well as daily precipitation totals are recorded by Dave Weulander at his home across from the school.

**ASHW3-** In Ashland, WI Michell and Chad Lampson take daily readings of temperatures, rain, and snowfall.

**SPNW3-** In Spooner, WI Robert Dries records precipitation. He also records snow depth and the water equivalent of the snow on the ground.


**CUKM5-** Don Potter at the US Forestry Office in Cook, MN records temperatures and precipitation in support of their fire weather program.

Donnie Ulrich, co-op observer at Indus, MN, received a 10-year Length-of-Service Award on March 8th. There to present the award was NWS program manager Jim Christenson and forecaster Greg Frosig.

## Good News From Cook, Minnesota

An unfortunate fire at the home of co-op observers Don and Dustin Potter in February 1999 outside of Cook, MN prompted the temporary relocation of this official co-op site to the forestry office just north of Cook. Their new home on Vermilion Lake east of Cook has recently been finished, and their weather observing site has been re-established there. Dustin Potter, recently highlighted in the National Co-op Observer publication as one of the country's youngest observers at age 10, records and transmits temperature and precipitation data.

*- Jim Christenson, Data Acquisition Program Manager*

The *Northland Sky Watcher* is a newsletter published by the National Weather Service Office in Duluth, MN for our weather spotters and observers. We welcome your questions and comments. We can be reached by:

Phone: (218) 729-6697
(218) 283-4615 dialing from International Falls

mail: 5027 Miller Trunk hwy
Duluth, MN 55811

or e-mail to *carol.christenson@noaa.gov*

Visit our homepage on the internet at *www.crh.noaa.gov/dlh/duluth.htm*

Editor.....Carol Christenson
Assistant Editor.....Ed Flenz


NATIONAL WEATHER SERVICE- NOAA
5027 MILLER TRUNK HIGHWAY
DULUTH MN 55811-1442

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300